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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/782,394	02/18/2004	Paul J. Husted	ATH-0125	4348

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EXAMINER	
BURD, KEVIN MICHAEL	

ART UNIT	PAPER NUMBER
2611	

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09/25/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/782,394	HUSTED ET AL.	
	Examiner	Art Unit	
	Kevin M. Burd	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 July 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24 and 51-79* is/are pending in the application.

4a) Of the above claim(s) *25-50 and 80-88* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-24 and 51-79* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

1. This office action, in response to the remarks filed 7/20/2007, is a final office action.

Response to Arguments

2. Applicant's arguments filed 7/20/2007 have been fully considered but they are not persuasive. Applicant states Husted does not disclose a selective abort sequence. The examiner disagrees. Husted discloses detecting interference in an input signal. When an adjacent interferer is present, interference is present in band for the desired signal, so that in band power measurements when no desired signal is present can get a quick spike, looking like an increase in the in band power. The lowest 28 of 32 samples are used so the temporary spike is nulled out. Once a signal of interest is present, all samples are used. Strong and weak detection will then be used (paragraph 0054). If a signal is found, the detection process is complete and the signal will be feed to downstream elements for processing of the reception sequence (paragraph 0031). This is the activating a signal reception sequence. If a signal is not found, the detection process will stop for this portion of the signal. The signal will not be sent to down stream elements for processing of the reception sequence. Instead, the detection process will be repeated on the next portion of the signal (paragraph 0031). Therefore, when the signal is an interference signal, the signal detection of a signal of interest is aborted and new processes are conducted.

For this reason and the reasons stated in the previous office action, the rejections of the claims are maintained and stated below.

Election/Restrictions

3. This application contains claims 25-50 and 80-88 drawn to an invention nonelected without traverse in the reply filed on 2/21/2007. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

4. Claims 1-21, 23, 51-76 and 78 are rejected under 35 U.S.C. 102(a) as being anticipated by Husted et al (US 2002/0183027).

Regarding claims 1 and 64, Husted discloses a method of using a system for disregarding co-channel signals in a communication network. The receiver searches for and receives a signal (figure 2). The receiver, shown in figure 2, processes the signal. An in-band signal is detected and differentiated from high power out of band signals that overlap the target band (paragraph 0006). An abort sequence is disclosed that will disable signal detection upon the determination that the signal is an interference signal (paragraphs 0006 and 0031).

Regarding claims 2 and 65, Husted discloses determining the power level of the in-band signal and converting the received signal to a digital signal (paragraph 0036).

Regarding claims 3 and 66, Husted further discloses performing a quick-drop gain control procedure if the power level is above a saturation limit (paragraphs 0040-0042) and performing a coarse gain drop procedure if the power level of the received signal is within a range (paragraphs 0036 and 0037).

Regarding claims 4 and 67, the in-band power is estimated (paragraph 0050).

Regarding claim 5, Husted discloses once the received signal is in-range, the AGC control logic 230 detects the presence of a desired packet. For this purpose the AGC control logic determines an in-band power estimate (paragraph 0050). The in-band power estimate will be of at least a portion of the data packet.

Regarding claim 6, Husted discloses calculating the instantaneous power for half of a preamble (paragraph 0034).

Regarding claims 7, 8 and 68, Husted discloses filtering the received signal and determining a filtered digital signal power level (paragraph 0050 and figure 3).

Regarding claim 9, Husted discloses once the received signal is in-range, the AGC control logic 230 detects the presence of a desired packet. For this purpose the AGC control logic determines an in-band power estimate (paragraph 0050). The in-band power estimate will be of at least a portion of the data packet.

Regarding claim 10, Husted discloses calculating the instantaneous power for half of a preamble (paragraph 0034).

Regarding claims 11-13 and 69-71, Husted further discloses performing a quick-drop gain control procedure if the power level is above a saturation limit (paragraphs

0040-0042) and performing a coarse gain drop procedure if the power level of the received signal is within a range (paragraphs 0036 and 0037).

Regarding claims 14-16 and 72, Husted further discloses identifying an increase in measured in-band power followed by a correlation exceeding thresholds (paragraph 0031).

Regarding claim 17, Husted discloses self-correlation will not be valid until the entire viewing window for self-correlation is filled with post-gain-change values (paragraph 0031).

Regarding claims 18, 19, 21, 23, 73, 74, 76 and 78, Husted discloses detecting a new signal and to disable weak signal detection (paragraphs 0031 and 0066).

Regarding claims 20 and 75, Husted discloses calculating in-band power using a limited number of samples. If this power level exceeds a value, the remaining samples are used. The in-band power measurement when no desired signal is present can get a quick spike for a few samples and will immediately decrease when the remaining samples are used (paragraph 0054).

Regarding claim 51, Husted discloses a system for selectively disregarding signals operating on a common channel (figures 2 and 3). Figure 2 discloses receiving a signal and converting the signal to a digital signal. Figure 3 discloses a filter section and power detectors. The power detectors send input signals to a control logic to abort signals (figure 3 and paragraph 0050).

Regarding claims 52-54, Husted discloses the filters shown in figure 3.

Regarding claim 55, Husted discloses the power detectors shown in figure 3.

Regarding claims 56-59, Husted discloses detecting a new signal and to disable weak signal detection if the increase in power exceeds a threshold (paragraphs 0031 and 0066).

Regarding claim 60, Husted discloses once the received signal is in-range, the AGC control logic 230 detects the presence of a desired packet. For this purpose the AGC control logic determines an in-band power estimate (paragraph 0050). The in-band power estimate will be of at least a portion of the data packet.

Regarding claim 61, Husted discloses calculating the instantaneous power for half of a preamble (paragraph 0034).

Regarding claims 62 and 63, the power levels are determined in the power detectors and input to the AGC logic via control lines (figure 3).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 22, 24, 77 and 79 are rejected under 35 U.S.C. 103(a) as being unpatentable over Husted et al (US 2002/0183027) in view of Haverinen et al (US 2004/0208151).

Regarding claims 22, 24, 77 and 79, Husted discloses the method of using a system for disregarding co-channel signals in a communication network as stated

above. The system operates using IEEE 802.11 standard (paragraph 0014). Husted does not disclose aborting the signal reception sequence if the in-band signal includes one or more of an address or an identification signal. Haverinen discloses transmitting packets according to IEEE 802.11 standard (paragraph 0046). The packets contain a destination MAC address field and are verified. If the identifier is incorrect, the access point preferably discards the data packet (paragraph 0046). This allows improper or undesirable signals to be disregarded, saving processing time and power. For these reasons, it would have been obvious for one of ordinary skill in the art at the time of the invention to combine the teachings of Haverinen into the method and system of Husted.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

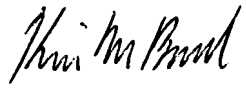
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin M. Burd whose telephone number is (571) 272-3008. The examiner can normally be reached on Monday - Friday 9 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David C. Payne can be reached on (571) 272-3024. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kevin M. Burd
9/18/2007



KEVIN BURD
PRIMARY EXAMINER